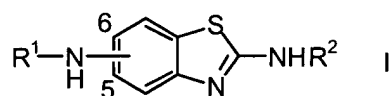


AMENDMENTS TO THE CLAIMS

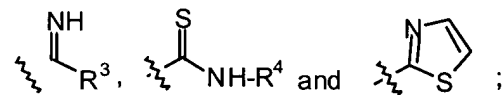
Kindly amend claims 4, 6, 8, 13, 15, 17, 21, 23, 25–28, 30, and 31. Also, kindly cancel claims 32, 33, 36, and 37.

1. (Original) A compound of Formula I, and pharmaceutically acceptable salts, hydrates, solvates and prodrugs thereof:

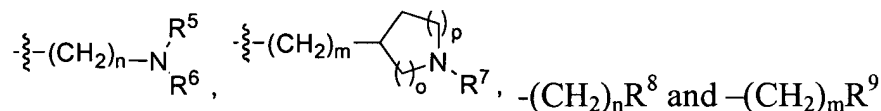


wherein

R¹ is selected from the group consisting of:



R² is selected from the group consisting of H,



R³ is selected from the group consisting of C₁₋₆alkyl, SC₁₋₆alkyl, thienyl and furanyl;

R⁴ is selected from the group consisting of H, C₁₋₆alkyl, Ph, C(O)Ph and -C(O)C₁₋₆alkyl;

R⁵ and R⁶ are independently selected from the group consisting of H and C₁₋₆alkyl or together R⁵ and R⁶ and the nitrogen to which they are attached form a 3 to 7-membered azacarbocyclic ring wherein one of the carbon atoms in the ring may optionally be replaced with O, S, or NR⁷;

R⁷ is selected from the group consisting of H, C₁₋₆alkyl, Ph, Heteroaryl, CH₂Ph, and CH₂Heteroaryl, with Ph and Heteroaryl being optionally substituted with 1-3 groups independently selected from the group consisting of C₁₋₄alkyl, halo, OH, OC₁₋₄alkyl, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro and cyano;

R⁸ is selected from the group consisting of H, OH, Ph, naphthyl and heteroaryl, with Ph, naphthyl and heteroaryl being optionally substituted with 1-3 groups independently selected from the group consisting of C₁₋₄alkyl, halo, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro, cyano, OH and OC₁₋₄alkyl;

R⁹ is C₃₋₇cycloalkyl optionally substituted with 1-3 groups independently selected from the group consisting of C₁₋₄alkyl, halo, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro, cyano, OH and OC₁₋₄alkyl and one or two of the carbon atoms in C₃₋₇cycloalkyl may optionally be replaced with O or S;

n is 1-6;

m is 0-6;

o is 0-2;

p is 1-2; and

the group R¹NH- is attached to the 5- or 6-position of the aminobenzothiazole ring, with the proviso that when R² is H then R⁴ is not C₁₋₆alkyl.

2. (Original) The compound according to claim 1, wherein R³ is selected from the group consisting of C₁₋₂alkyl, SC₁₋₄alkyl and thienyl.

3. (Original) The compound according to claim 2, wherein R³ is selected from the group consisting of SC₁₋₂alkyl and thienyl.

4. (Currently Amended) The compound according to ~~any one of~~ claims 1-3, wherein R⁴ is selected from the group consisting of H, C₁₋₄alkyl, Ph, C(O)Ph and -C(O)C₁₋₄alkyl.

5. (Original) The compound according to claim 4, wherein R⁴ is selected from the group consisting of H, and C(O)Ph.

6. (Currently Amended) The compound according to ~~any one of~~ claims 1-5, wherein R⁵ and R⁶ are independently selected from a group consisting of H and C₁₋₄alkyl or together

R⁵ and R⁶ and the nitrogen to which they are attached form a 4 to 6-membered azacarbocyclic ring wherein one of the carbon atoms in the ring may optionally be replaced with O, S, or NR⁷.

7. (Original) The compound according to claim 6, wherein R⁵ and R⁶ are independently selected from a group consisting of H and CH₃ or together R⁵ and R⁶ and the nitrogen to which they are attached form a 5 to 6-membered azacarbocyclic ring.

8. (Currently Amended) The compound according to ~~any one of~~ claims 1-7, wherein R⁷ is selected from H, C₁₋₄alkyl, Ph, Heteroaryl, CH₂Ph, and CH₂Heteroaryl, with Ph and Heteroaryl being optionally substituted with 1-2 groups independently selected from the group consisting of C₁₋₄alkyl, halo, OH, OC₁₋₄alkyl, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro and cyano.

9. (Original) The compound according to claim 8, wherein R⁷ is selected from H, C₁₋₄alkyl, Ph, Heteroaryl, CH₂Ph, and CH₂Heteroaryl, with Ph and Heteroaryl being optionally substituted with 1 group independently selected from the group consisting of C₁₋₄alkyl, halo, OH, OC₁₋₄alkyl, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro and cyano.

10. (Original) The compound according to claim 9, wherein R⁷ is selected from H, Ph, C₁₋₄alkyl and CH₂Ph, with Ph being optionally substituted with 1 groups independently selected from the group consisting of C₁₋₄alkyl, halo, OH, OC₁₋₄alkyl, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro and cyano.

11. (Original) The compound according to claim 10, wherein R⁷ is selected from H, C₁₋₂alkyl, Ph and CH₂Ph, with Ph being optionally substituted with 1 groups independently selected from the group consisting of methyl, halo, OH, methoxy, NH₂, NHMe, NMe₂, nitro and cyano.

12. (Original) The compound according to claim 11, wherein R⁷ is selected from methyl and CH₂Ph.

13. (Currently Amended) The compound according to ~~any one of~~ claims 1-12, wherein R⁸ is selected from the group consisting of H, OH, Ph and heteroaryl, with Ph and heteroaryl being optionally substituted with 1-2 groups independently selected from the group consisting of C₁₋₄alkyl, halo, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro, cyano, OH and OC₁₋₄alkyl.

14. (Original) The compound according to claim 13, wherein R⁸ is selected from the group consisting of H, OH, Ph, and heteroaryl, with Ph and heteroaryl being optionally substituted with 1 group independently selected from the group consisting of C₁₋₄alkyl, halo, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro, cyano, OH and OC₁₋₄alkyl.

15. (Currently Amended) The compound according to ~~any one of~~ claims 13-14 wherein heteroaryl is a 5 or 6 membered aromatic ring.

16. (Original) The compound according to claim 15, wherein heteroaryl is selected from pyridyl, imidazolyl, thienyl and furanyl.

17. (Currently Amended) The compound according to ~~any one of~~ claims 1-16, wherein R⁹ is C₃₋₇cycloalkyl optionally substituted with 1-2 groups independently selected from the group consisting of C₁₋₄alkyl, halo, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro, cyano, OH and OC₁₋₄alkyl and wherein one of the carbon atoms in C₃₋₇cycloalkyl may optionally be replaced with O or S.

18. (Original) The compound according to claim 17, wherein R⁹ is C₅₋₇cycloalkyl optionally substituted with 1 group independently selected from the group consisting of

C₁₋₄alkyl, halo, NH₂, NH(C₁₋₄alkyl), N(C₁₋₄alkyl)(C₁₋₄alkyl), nitro, cyano, OH and OC₁₋₄alkyl and wherein one of the carbon atoms in C₃₋₇cycloalkyl may optionally be replaced with O or S.

19. (Original) The compound according to claim 18, wherein R⁹ is C₅₋₇cycloalkyl herein one of the carbon atoms in C₃₋₇cycloalkyl may optionally be replaced with O.

20. (Original) The compound according to claim 17, wherein R⁹ is selected from cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, tetrahydropyranyl and tetrahydrofuran.

21. (Currently Amended) The compound according to ~~any one of~~ claims 1-20, n is 1-4.

22. (Original) The compound according to claim 21, wherein n is 2.

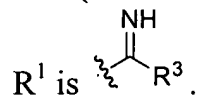
23. (Currently Amended) The compound according to ~~any one of~~ claims 1-22, wherein m is 0-2.

24. (Original) The compound according to claim 23, wherein m is 0.

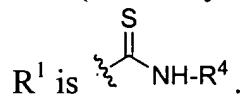
25. (Currently Amended) The compound according to ~~any one of~~ claims 1-24, wherein both o and p are 1 (to provide a pyrrolidiny ring).

26. (Currently Amended) The compound according to ~~any one of~~ claims 1-24, wherein both o and p are 2 (to provide a piperidiny ring).

27. (Currently Amended) The compound according to ~~any one of~~ claims 1-26, wherein



28. (Currently Amended) The compound according to ~~any one of~~ claims 1-26, wherein



29. (Original) The compound according to claim 1 that is selected from the group consisting of:

N-(2-Amino-benzothiazol-6-yl)-2-methylthiocarboximidamide;

N-(2-Amino-benzothiazol-6-yl)-2-ethylthiocarboximidamide;

N-(2-Amino-benzothiazol-6-yl)-2-propylthiocarboximidamide;

N-(2-Amino-benzothiazol-6-yl)-2-isopropylthiocarboximidamide;

N-(2-Amino-benzothiazol-6-yl)-2-methylcarboximidamide;

N-(2-Amino-benzothiazol-6-yl)-2-thiophenecarboximidamide;

N-[2-(2-pyrrolidin-1-ylethylamino)-benzothiazol-6-yl]-2-thiophenecarboximidamide;

1-(2-Amino-benzothiazol-5-yl)-3-benzoyl-thiourea;

1-(2-Amino-benzothiazol-5-yl)-3-ethyl-thiourea;

N-(2-Amino-benzothiazol-5-yl)-thiophene-2-carboxamidine;

N5-Thiazol-2-yl-benzothiazole-2,5-diamine;

(2-Amino-benzothiazol-5-yl)-thiourea;

N-[2-(Tetrahydro-pyran-4-ylamino)-benzothiazol-6-yl]-thiophene-2-carboxamidine;

N-{2-[2-(4-Bromo-phenyl)-ethylamino]-benzothiazol-6-yl}-thiophene-2-carboxamidine;

N-[2-(2-Pyridin-2-yl-ethylamino)-benzothiazol-6-yl]-thiophene-2-carboxamidine;

N-[2-(1-Benzyl-piperidin-4-ylamino)-benzothiazol-6-yl]-thiophene-2-carboxamidine;

N-{2-[2-(3H-Imidazol-4-yl)-ethylamino]-benzothiazol-6-yl}-thiophene-2-carboxamidine;

N-[2-(2-Morpholin-4-yl-ethylamino)-benzothiazol-6-yl]-thiophene-2-carboxamidine;

N-[2-(2-Dimethylamino-ethylamino)-benzothiazol-6-yl]-thiophene-2-carboxamidine;

N-{2-[2-(1-Methyl-pyrrolidin-2-yl)-ethylamino]-benzothiazol-6-yl}-thiophene-2-

carboxamidine;

N-{2-[2-(3-Chloro-phenyl)-ethylamino]-benzothiazol-6-yl}-thiophene-2-carboxamidine;

N-[2-(4-Hydroxy-butylamino)-benzothiazol-6-yl]-thiophene-2-carboxamidine;

N-[2-(3-Imidazol-1-yl-propylamino)-benzothiazol-6-yl]-thiophene-2-carboxamidine;

N2-(1-Benzyl-piperidin-4-yl)-N6-thiazol-2-yl-benzothiazole-2,6-diamine;

1-Benzoyl-3-{2-[2-(4-bromo-phenyl)-ethylamino]-benzothiazol-6-yl}-thiourea;

{2-[2-(4-Bromo-phenyl)-ethylamino]-benzothiazol-6-yl}-thiourea; and

1-{2-[2-(4-Bromo-phenyl)-ethylamino]-benzothiazol-6-yl}-2-ethyl-isothiourea.

30. (Currently Amended) A pharmaceutical composition comprising a compound according to ~~any of~~ claims 1-29 and a pharmaceutically acceptable carrier.

31. (Currently Amended) A method of treating, or reducing the risk of, a disease or condition which benefits from an inhibition of NOS activity comprising administering an effective amount of a compound according to ~~any one of~~ claims 1-29, including those where R² is H and R⁴ is C₁₋₆alkyl, to a cell or animal in need thereof.

32. (Cancelled)

33. (Cancelled)

34. (Original) The method according to claim 31, wherein the disease or condition that may benefit from an inhibition of NOS activity is selected from the group consisting of migraine, inflammatory diseases including reversible obstructive airway diseases (e.g., asthma and adult respiratory distress syndrome (ARDS)), stroke, neurological deficits associated with coronary artery bypass graft (CABG), acute and chronic pain, neuropathic pain, traumatic shock, reperfusion injury, multiple sclerosis, AIDS associated dementia, neurodegenerative diseases, neuron toxicity, Alzheimer's disease, chemical dependencies and addictions (e.g., dependencies on drugs, alcohol and nicotine),

epilepsy, anxiety, head trauma, morphine induced tolerance and withdrawal symptoms, acute spinal cord injury, Huntington's disease, Parkinson's disease, glaucoma, macular degeneration, diabetic nephropathy.

35. (Original) The method according to claim 34, wherein the disease or condition that may benefit from an inhibition of NOS activity is selected from the group consisting of stroke, reperfusion injury, neurodegeneration, head trauma, neurological deficits associated with CABG, migraine, neuropathic pain and chronic pain.

36. (Cancelled)

37. (Cancelled)